

CLAIM AMENDMENTS

1-39 (canceled)

40. (currently amended) A method for producing magnetically active shape memory metal alloy containing nickel, manganese and gallium, comprising:

a) melting nickel and manganese to form a nickel-manganese master alloy,

b) cooling the master alloy,

c) crushing the master alloy,

d) adding gallium to the crushed master alloy,

e) melting the crushed master alloy with the added gallium,

f) homogenizing the melt essentially at the melting temperature,

g) ~~casting the obtained~~ pouring the nickel-manganese-gallium alloy, alloy from step f), and

h) subjecting the nickel-manganese-gallium alloy from step g) to directional solidification at 10-100° C below the liquidus temperature of said nickel-manganese-gallium alloy.

41. (previously presented) A method according to claim 40, comprising placing the gallium in a crucible, adding the crushed master alloy to the crucible, and melting the crushed master alloy with the gallium.

42. (currently amended) A method for producing magnetically active shape memory metal alloy containing nickel, manganese and gallium, comprising:

a) melting nickel and gallium to form a nickel-gallium master alloy,

b) cooling the master alloy,

c) crushing the master alloy,

d) adding manganese to the crushed master alloy,

e) melting the crushed master alloy with the added manganese,

f) homogenizing the melt essentially at the melting temperature,

g) ~~casting the obtained~~ pouring the nickel-manganese-gallium alloy, alloy from step f), and

h) subjecting the nickel-manganese-gallium alloy from step g) to directional solidification at 10-100° C below the liquidus temperature

of said nickel-manganese-gallium alloy.

43. (previously presented) A method according to claim 42, comprising placing the manganese in a crucible, adding the crushed master alloy to the crucible, and melting the crushed master alloy with the manganese.